



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,787	07/14/2003	Yoichi Ikeda	088473-0134	4084
22428	7590	03/17/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			KIM, CHONG HWA	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,787

Applicant(s)

IKEDA, YOICHI

Examiner

Chong H. Kim

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/14/03; 11/19/03</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Exhibit A</u> . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 7, 12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamauchi, U.S. Patent 5,483,850.

Yamauchi shows, in Figs. 1-5, a hydraulic passage structure of an automatic transmission having at least one friction element for gearshift, the friction element comprising a drum, the hydraulic passage structure comprising;

a housing 24;

a sleeve 18 which is fitted into an inner circumference portion 32 of the housing;

a center member 16 joined integrally with the drum of the friction element 62, the center member being inserted in an inner circumference of the sleeve;

a radial passage 68A formed in the housing;

a sleeve passage 68B formed in the sleeve, the sleeve passage connecting with the radial passage of the housing;

a center member passage 68c formed within the center member, the center member passage connecting the friction element and the sleeve passage, line pressure being supplied to

Art Unit: 3682

the friction element via and in order of the radial passage, the sleeve passage, and the center member passage;

wherein the housing comprises a midway wall 24 which is formed integrally therewith, the radial passage of the housing being formed in the midway wall;

wherein the sleeve is made from a harder material (see col. 2, lines 1-9) than the housing and inserted from an axial direction into the inner circumference portion of the housing (note: the limitation "inserted from an axial direction into the inner circumference portion of the housing" is a process in which the hydraulic passage structure is made. Such limitation is not given patentable weight because MPEP 2113 states that the process in which the product is made cannot be given patentable weight in a product claim although the product by process claim is permissible), and fixed to the housing;

wherein the sleeve passage comprises an outer circumference passage 72B which connects with the radial passage of the housing; and

wherein the center member passage comprises an external passage which connects with the sleeve passage, and an internal passage which connects the external passage and the friction element.

3. Claims 1, 2, 7-9, 12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Barton et al., U.S. Patent 5,480,014.

Barton et al. shows, in Figs. 1-2, and in Exhibit A, a hydraulic passage structure of an automatic transmission having at least one friction element for gearshift, the friction element comprising a drum, the hydraulic passage structure comprising;

Art Unit: 3682

a housing (H);

a sleeve 17 which is fitted into an inner circumference portion of the housing;

a center member 12 joined integrally with the drum of the friction element 13, the center member being inserted in an inner circumference of the sleeve;

a radial passage (RP) formed in the housing;

a sleeve passage (SP) formed in the sleeve, the sleeve passage connecting with the radial passage of the housing;

a center member passage 41 formed within the center member, the center member passage connecting the friction element and the sleeve passage, line pressure being supplied to the friction element via and in order of the radial passage, the sleeve passage, and the center member passage;

wherein the housing comprises a midway wall (MW) which is formed integrally therewith, the radial passage of the housing being formed in the midway wall;

wherein the sleeve is inserted from an axial direction into the inner circumference portion of the housing (note: the limitation “inserted from an axial direction into the inner circumference portion of the housing” is a process in which the hydraulic passage structure is made. Such limitation is not given patentable weight because MPEP 2113 states that the process in which the product is made cannot be given patentable weight in a product claim although the product by process claim is permissible), and fixed to the housing;

wherein the sleeve passage comprises an outer circumference passage (SP) which connects with the radial passage of the housing;

Art Unit: 3682

wherein the sleeve passage further comprises a plurality of holes (SPH) which connects the outer circumference passage with the center member passage;

wherein the center member passage comprises an external passage 40 which connects with the sleeve passage, and an internal passage 41 or 42 which connects the external passage and the friction element.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barton et al. in view of Yamauchi.

Barton et al. shows, as discussed above in the rejection of claim 1, the hydraulic passages structure comprising the sleeve disposed within the housing, but fails to discuss concerning the hardness of the sleeve and the housing.

Yamauchi teaches, in col. 2, lines 1-9, the hydraulic passage structure comprising a sleeve 18 that is made of metal including iron and a housing 24 that is made of aluminum alloy.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the harder material for the sleeve part as taught by Yamauchi in the sleeve that includes a gear 18 as shown by Barton et al. in order to make the transmission last longer.

Art Unit: 3682

6. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi.

Yamauchi shows, as discussed above in the rejection of claim 1, the hydraulic passage structure comprising the sleeve being made with a harder material (iron) than the housing (aluminum alloy), wherein the sleeve inserted from an axial direction into the inner circumference portion of the housing (note: the limitation “inserted from an axial direction into the inner circumference portion of the housing” is a process in which the hydraulic passage structure is made. Such limitation is not given patentable weight because MPEP 2113 states that the process in which the product is made cannot be given patentable weight in a product claim although the product by process claim is permissible), and fixed to the housing, but fails to show the sleeve material being made from a ferro-alloy and the sleeve being fixed to the housing by a plurality of nuts.

As to the matter of the material of the sleeve, it would have been obvious to make the sleeve from ferro-alloy in Yamauchi since the examiner takes Official Notice of the fact that adding materials, such as chromium, silicon, tungsten, manganese, and molybdenum, into iron to produce ferro-alloy, an abrasion resisting alloy, for the use in any mechanical parts in transmission is well known and such material selection would be within the level of ordinary skill in the art.

As to the matter of the sleeve being attached to the housing with nuts, it would have been obvious to fix the sleeve onto the housing with nuts in Yamauchi since the examiner takes Official Notice of the fact that using plurality of nuts (such as lock nuts) at the end of the sleeve to fix the sleeve onto the housing in order to maintain the sleeve and housing attachment is a well

Art Unit: 3682

known method to connect one element to another and would be within the level of ordinary skill in the art.

Allowable Subject Matter

7. Claims 10, 11, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fluid supply passage structures.

Woolley, U.S. Patent 2,984,122

Yoshikawa et al., U.S. Patent 5,630,492

Raszkowski, U.S. Patent 5,577,588

Takagi et al., U.S. Patent 5,437,355

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (571) 272-7108. The examiner can normally be reached on Monday - Friday; 6:00 - 2:00.

Art Unit: 3682

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk
March 10, 2006


CHONG H. KIM
PRIMARY EXAMINER

Exhibit A

U.S. Patent

Jan. 2, 1996

Sheet 1 of 2

5,480,014

